

Abstract:

Page 30, in the abstract section, replace with the following new abstract paragraph:

--- MULTIMODE AND MULTIBAND MIMO TRANSCEIVER OF
W-CDMA, WLAN AND UWB COMMUNICATIONS

Abstract of the Disclosure

A multimode and multiband MIMO transceiver of W-CDMA, WLAN and UWB communication is disclosed. The transceiver uses four antennas at the transmitter and the receiver ~~as a MIMO link~~. The W-CDMA has a multicarrier for 12 channels with a total of ~~15 MHz~~ 15 MHz frequency bandwidth and is able to transmit ~~[[the]]~~ a data rate more than 2 Mbps. The WLAN can transmit and receive ~~[[a]]~~ the data rate up to 54 Mbps based on OFDM ~~technology~~ technologies. On the other hand, the UWB communication uses an OFDM-based multicarrier for four-multiband, with each multiband of frequency bandwidth about 512 MHz, and is able to transmit a very high data rate ~~[[of]]~~ more than 1 Gbps. Thus, the multimode and multiband MIMO transceiver of W-CDMA, WLAN and UWB communication is enable a user to ~~have internet surf, to listen MP3 music, to watch DVD, to play video game, to view stock graph, to transmit data~~ perform multiple tasks in a real-time operation. This multimode and multiband MIMO-based transceiver utilizes a trade-off benefit of W-CDMA, WLAN and UWB communications, thereby having a co-existence of multi-standard for applications in a wireless and fixed wireless communication environment.